

1 Abstract

2 A magnetic recording medium includes a substrate, an underlayer, a lower
3 magnetic layer formed on the underlayer, an intermediate layer, and an upper magnetic
4 layer formed on the intermediate layer. The intermediate layer is typically Ru, and
5 promotes antiferromagnetic coupling between the upper and lower magnetic layers. The
6 upper and lower magnetic layers are typically Co alloys. The lower magnetic layer has a
7 high saturation magnetization M_s to promote high exchange coupling between the upper
8 and lower magnetic layers. The dynamic coercivity of the lower magnetic layer is lower
9 than the exchange field to ensure rapid switching of the lower magnetic layer.